L 43986-66 EWP(e)/EWT(m) WH
ACC NR: AP6030594 (A,N) SOURCE CODE: UR/0413/66/000/016/0081/0081

INVENTOR: Botvinkin, O. K.; Demichev, S. A.; Naydenov, A. P.

ORG: none

TITLE: Glass. Class 32, No. 185023 [announced by Saratov Branch of the State Scientific-Research Institute of Glass (Saratovskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta stekla)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 81

TOPIC TAGS: heat resistant glass, aluminoborosilicate glass, acid resistant glass

ABSTRACT: This Author Certificate introduces the following glass formulation (in % by wt): 61—64 SiO_2; 3—5 Al_2O_3; 14—16 B_2O_3, 8—10.5 ZrO_2, and 7—8 Na_2O. The glass has increased thermal stability and acid resistance. [JK]

SUB CODE: 11/ SUBM DATE: 10May65/ ATD PRESS: 5071

Card 1/1 UCR UDC: 666.113.831. 4'623'284'273-31'33

DEMICHEV, V. F. and PROKHOROV, Yu. G.

"Investigation of the Neutron Emission Arising in a Gaseous Discharge with a Current of 160 KA." (Work carried out in 1957); pp. 81-86.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. IV. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

DEMICHEV, V F

Reports presented at the 5th Intl. Conference on Ionization Phenomena in Gases. Munich, 28 August - 1 September 1961.

a. G A Baitsvorskaya, A N Andrianov, V F Demichev and V I Vasilyev

"Investigation of a Pulse Discharge in a Hollow Cylindrical Gas Sheath"

b. B G Brezhnev Yu S Nikitin

"Energy Measurements of Fast Electrons Based During a Powerful Pulse Discharge" Chamber

c. A D Berezin, A M Zaydel, and G N Malyshev

"On a Method of Spectroscopic Investigation of the Hydrogen Discharge Chamber Walls Bombarded"

d. V F Minayeva N N Sobolev

"On the Hydrogen Mass Spectroscopy Under the Carbon Arc and Deposition Wave Conditions"

e. B G Il'inskiy, R A [illegible], A V Kozlov, G G Petrov, G L Shkaruvskiy

"An Investigation of Plasma Formation in the Magnetic Field"

f. V S Komel'kov, Yu V Skvortsov V N Tereshchenko S S Zhevrzhinov

"Dynamical Current Cord"

g. N N Sobolev

"A Spectroscopically Studied State of Gases Following the Detonation Wave"

h. S E Khaykin, Ye S Solov'yev N V Fedorenko

"Molecular Hydrogen Ionization by Gas Hydrogen Atoms"

i. I P Stakhanov, G N Churayev

"Ionization of Gases Induced by Multi-charged Ions"

j. P N Ukhov, L N Pikunov

"The Source for Molecular Hydrogen Ions Formation at the Gas Bridge"

k. A I Bezlatchenko V V Kiselev, N P Malyshev N N Semenko

"Injection of an Ionic Beam into the Gas Magnetic Trap"

l. Ye Yurasova

"On Directed Ejection of Particles from a Copper Single Crystal Sputtered by Bombardment with Ions"

ACCESSION NR: AT4025319 S/0000/63/000/000/0274/0282

AUTHORS: Prokhorov, Yu. G.; Demichev, V. F.; Matyukhin, V. D.

TITLE: Measurement of time variation of plasma energy

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 274-282

TOPIC TAGS: plasma research, plasmoid, plasma source, plasma temperature, discharge plasma, plasma heating

ABSTRACT: A system, called "thermal probe," has been developed to measure the time variation of plasma energy. It consists of a platinum foil 6 microns thick, heated electrically to 1,000--1500°, the incandescence of which is registered by a photomultiplier with maximum sensitivity in the red part of the spectrum (near 7,000 Å). The spectral sensitivity of the foil-plus-photomultiplier system, with the foil electrically heated, is sufficient for the registration of

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ACCESSION NR: AT4025319

a slight change in the foil temperature such as is produced by the heating of the plasma. The instrument is calibrated by discharging a capacitor through the foil. The thermal probe was used to measure the plasma energy in slow (millisecond) and fast (microsecond) processes, as well as to estimate the efficiency of thermal insulation of the plasma column in a toroidal system with longitudinal magnetic field ("Tokamak"). It was also used to measure the energy of fast plasmoids obtained with the aid of a coaxial plasma gun. In the latter case such a measurement is preferable because the usual calorimetric method determines only the integral energy of the plasmoids occurring in one discharge, without giving the energy in individual plasmoids. The use of the thermal probe in conjunction with other methods (electric probe, millimeter waves transmitted through the plasma, etc.) makes it possible to determine a large number of parameters of plasmoids produced in a single discharge. Another feature of the apparatus is that there is no direct electric connection between the plasma and the recording apparatus, which can

Card 2/03

ACCESSION NR: AT4025319

be located away from the plasma. The thermal probe can also be used in chambers with high initial vacuum. Orig. art. has: 6 figures, 3 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 19Oct63 DATE ACQ: 16Apr64 ENCL: 03

SUB CODE: ME NR REF SOV: 000 OTHER: 000

Card 3/3

DEMICHEV, V.F.; MATYUKHIN, V.D.

Studying the properties of fast moving plasma clots. Dokl. AN SSSR 150 no.2:279-282 My '63. (MIRA 16:5)

1. Predstavleno akademikom L.A.Artsimovichem.
(Plasma (Ionized gases))

L 10178-63 EWT(1)/EDS/IEC(b)-2/ES(w)-2--AFFTC/
ASD/ESD-3/AFWL/SSD--Pab-4--IJP(C)
ACCESSION NR: AP3000744 S/0020/63/150/003/0523/0526

69
66

AUTHOR: Demichev, V. F.; Strunnikov, V. M.

TITLE: Interaction of high-density plasmoids with magnetic fields

SOURCE: AN SSSR. Doklady, v. 150, no. 3, 1963, 523-526

TOPIC TAGS: confinement of hot plasma, injection of plasma, plasma-magnetic field, interaction

ABSTRACT: The interaction of a plasma jet with a magnetic field and the collision of such a jet with a wall produced by a strong transverse magnetic field have been investigated. The penetration velocity of the plasma jet through a magnetic barrier was measured by the spectroscopic method and with magnetic sondes. The total energy penetrating through the barrier and the radial distribution of energy density in the jet were determined for different values of H sub 0 by the calorimetric method. The measurements showed that at H = 18 koe only 30% of the initial energy penetrates through the barrier, as a result of the deceleration of particles entering the increasing field and the

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reflection of a portion of the plasma jet from the barrier. Experiments showed that the barrier transparency depends on H and its gradient with respect to distance. At equal H sub max values, the barrier with the higher gradient is less transparent. The radial distribution of energy density differs in that for a lower gradient there is a higher energy density near the axis. The distribution of ion density n sub i along the axis of the magnetic field shows that at H = 6 koe the concentration of ions in the jet increases more than 10 times in comparison to the concentration at H = 0. At H = 24 koe this ratio increases to about 30 (n sub i is approximately equal to 6.10 sup 16 cm sup -3). The condition for deep penetration of the plasma jet into the magnetic field is a sup 2 sub 0/L sup 2 x H sup 2/4 PI Rho sub 0 v sup 2 sub 0 is less than 1, where a sub 0 is the initial radius of the jet, L is the length of the growing-field region, and Rho sub 0 is the initial density of the plasma. Under the conditions of this particular experiment the inequality reduces to the following:
H sup 2 sub max/4 PI Rho sub 0 v sup 2 sub 0 is less than 50. However, penetration was observed even at a ratio of approximately 150--200. This deviation is explained by the fact that in obtaining the inequality optimum conditions were assumed; in particular, finite conductivity was not taken into

L 10178-63
ACCESSION NR: AP3000744

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account. Investigations of the collision of a plasma jet with a magnetic wall produced by a transverse field revealed that even at very small values for the ratio, plasma can penetrate through the field, even though theoretically a total reflection of plasma from the field should occur. "In conclusion the authors express their sincere gratitude to Academician L. A. Artsimovich, Doctor of Physics and Mathematics A. M. Andrianov, and O. A. Bazilevskaya for their many valuable suggestions during the conduct of the experiments and consideration of the results." Orig. art. has: 4 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 30Oct62 DATE ACQ: 21Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 003 OTHER: 005

Card 3/3

L 40698-65 EPF(n)-2/EPA(w)-2/EWT(1)/EWG(m) Pi-4/Po-4/Pz-6/Pab-10 IJP(c) AT/
WW

ACCESSION NR: AT5006202 S/3136/64/000/587/0001/0028

46
42
B+1

AUTHOR: Demichev, V. F.

TITLE: Study of the properties of fast plasmoids 21

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 587, 1964. Izucheniye svoystv bystro dvizhushchikhsya plazmennykh sgustkov; otchet, 1-28

TOPIC TAGS: plasmoid, plasma density, plasma velocity, plasma momentum, plasma particle, plasma energy, injection

ABSTRACT: The article deals with experiments on the properties (velocity, energy, and momentum) of plasmoids produced in an electrodynamic injector of the coaxial type. The injector was of the type described by D. Marshall (Physics of Fluids v. 3, 134, 1960), 24 cm long, with inside and outside diameters 32 and 75 mm, respectively. The injector construction and operation are described. The plasmoid longitudinal velocity was measured by several methods (magnetic probe, measurement of diamagnetic properties of the plasma, photomultipliers). The energy was measured by a calorimetric method. The integral momentum of the plasmoid was determined by measuring the initial speed of a ballistic pendulum (deep cylindrical

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L 40[illegible]-65

ACCESSION NR: AT5006202

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vessel moving together with the calorimeter). The composition of the plasma was determined by a spectroscopic method. The energy loss due to the interaction between the plasmoids and the metallic surfaces of the apparatus was estimated by a calorimetric method. When working with hydrogen and deuterium, the attainable plasma speed could be varied between 2×10^6 and 8×10^7 cm/sec by varying the initial voltage or pressure of the injector or by varying the delay time. As a rule, two plasmoids were produced in each injection, the first several times faster than the second. In some cases the first plasmoid split into two, the front section carrying an appreciable fraction of the energy. The maximum plasmoid energy produced in one discharge exceeded 2000 J, and the maximum attainable momentum reached 2000 dyne-sec. The plasmoid dimensions could reach 20 x 100 cm, and the density could be varied from 10^{13} to 5×10^{15} cm^{-3}. The number of particles in the plasmoid could reach 2×10^{19} and their conductivity reached 10^{14} cgs esu. Not all the energy was transferred to the walls in the case of plasma-metal interaction, energy reflection similar to a shock wave taking place, reaching 75% of the incident energy under some conditions. "I thank L. A. Artsimovich and A. M. Andrianov for continuous interest in the work and for numerous discussions of the results, and V. D. Matyukhin for taking part in some of the experiments." Orig. art. has: 12 figures, 2 formulas, and 2 tables.

Card 2/3

L 10698-65

ACCESSION NR: AT5006202

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova (Institute of Atomic Energy)

SUBMITTED: 00 ENCL: 00 SUB CODE: ME

NR REF SOV: 004 OTHER: 002

Card 3/3 mfs

L 25965-66 EWT(l)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AP5026436 SOURCE CODE: UR/0089/65/019/004/0329/0335

AUTHOR: Demichev, V. F.; Matyukhin, V. D.; Nikologorskiy, A. V.; Strunnikov, V. M.

ORG: None

TITLE: Plasma bent in curved magnetic field

SOURCE: Atomnaya energiya, v. 19, no. 4, 1965, 329-335

TOPIC TAGS: plasma electromagnetics, plasma dynamics, plasma density, moving plasma, plasma magnetic field, plasma velocity

ABSTRACT: One of the useful techniques for purifying plasma bursts is to use a curved magnetic field for removal of impurities. After a brief discussion of methods employed, the authors describe their experiments with a plasma moving around a 90° bend in a curved quadrupole field formed by a system of four parallel conductors. This device was proposed to the authors by L. A. Artsimovich. Its arrangement is schematically shown on Fig. 1 (card 2/3). Two 30 cm long guide fields are interconnected by a bent field with a curvature radius R = 30 cm. The magnetic system is fed from the capacitor bank of 1500 microfarads. The plasma was produced by a coaxial electrodynamic gun. The greatest field intensity in the slit between conductors was 6 kilooersted. The maximum front velocity attained a rate of 10^7 cm/sec while the velocity

Card 1/3 UDC: 533.9

L 25965-66

ACC NR: AP5026436

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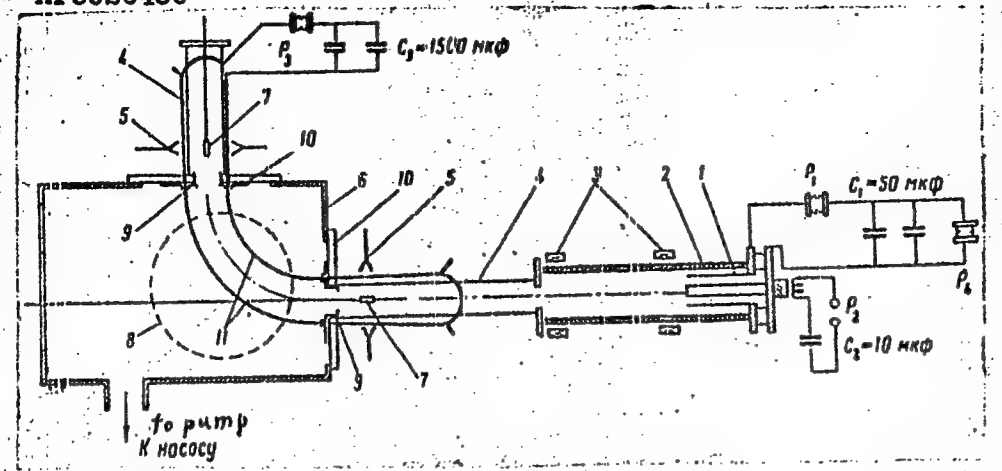

Fig. 1. Curved magnetic field device

1-plasma gun; 2-porcelain cylinder (d = 120 mm); 3-magnetic field coils; 4-quartz cylinder (d = 90 mm); 5-SHF antenna; 6-vacuum chamber (50 x 50 x 90 cm); 7-probes; 8-viewing window; 9-diaphragms (0.1 mm stainless steel, d = 60 mm); 10-glass insulators; 11-conductors.

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ACC NR: AP5026436 2

of central jet was 8×10^6 cm/sec at the maximum density of about 2×10^{15} cm^{-3}. The velocity of the most compressed part of the plasma at leaving the magnetic system, was 7×10^6 cm/sec. In spite of losses (through slits) the concentration of ions after the bend reached 2×10^{14} cm^{-3}. The total number of particles was about 10^{17}. The results of the experiments proved that the neutral gas was completely eliminated and a pure ionized plasma was practically obtained. An optimal value for the magnetic field intensity H of about 3 koe was reached. The variations of numbers of ions, of their concentration and distribution as well as of the plasma densities were illustrated in 7 graphs for various values of H. The authors express their gratitude to L. A. Artsimovich for his initial suggestion, continuous assistance and discussion of results. They thank also A. M. Andrianov for his continuous interest shown in their work. Orig. art. has: 2 diagrams, 7 graphs and 1 formula.

SUB CODE: 20 / SUBM DATE: 20Feb65 / ORIG REF: 008 / OTH REF: 004

Card 3/3 FW

DENICHEVA, A. P.

Rudenko, Ye. I. and Denicheva, A. P. - "On the question of the ability of the Tinak mud lake to prolong life", Trudy Astrakh. gos. med. in-ta, Vol. IX, 1946, p. 35-40.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

DEMICHEVA, D.M.

D'YAKONOVA, A., tkachikha Shuyskoy Ob"yedinennoy fabriki; STOLBUNOV, S.N., inzhener, konsul'tant; DEMICHEVA, D., redaktor; MALEK, Z., tekhnicheskiy redaktor.

[School at the loom] Shkola u stanka, [Moskva] Izd-vo VTsSPS Profizdat, 1953. 57 p. (MLRA 7:9)
(Weaving)

OVCHAROVA, A.; DROZHZHINA, K.; KABANOV, N.Ya., konsul'tant; DEMICHE-VA, D., redaktor; MALEK, Z., tekhnicheskiy redaktor.

[A high aim] Bol'shaia tsel'. Moskva, Profizdat, 1953. 62 p.

1. Nachal'nik otdela truda i zarplaty 1-go GPZ im.L.M.Kaganovicha(for Kabanov) 2. Rabotnitsa 1-go Gosudarstvennogo podshipnikovogo zavoda im. L.M.Kaganovicha (for Ovcharova,Drozhzhina) (Efficiency, Industrial) (Bearings(Machinery)) (MLRA 7:8)

IVANOVA, Yekaterina Ivanova; DEMICHEVA, D.M., redaktor; KIRSANOVA, N.A., tekhnicheskiy redaktor

[In the name of a great purpose] Vo imia bol'shoi tseli. [Moskva] Izd-vo VTsSPS Profizdat, 1954. 55 p. (MLRA 8:7)
(Textile industry)

PAVLOV, A.; [redacted]aktor; RAKOV, S.I., tekhnicheskiy redaktor.

[Textiles made of staple fiber on automatic looms.] Shtapel'-nye tkani na avtomatakh.[Moskva] Izd-vo VTsSPS Profizdat, 1954. 71p. (MLRA 8:3)

(Textile industry)

LEVCHENKO, Konstantin Petrovich; DEMICHEVA, D.M., redaktor; RAKOV, S.I. tekhnicheskiy redaktor

[Every minute is counted] Schet idet na minuty. [Moskva] Izd-vo VTsSPS Profizdat, 1955. 41 p. (MLRA 8:10)
(Steel industry)

MEDVEDEV, Ivan Aleksandrovich; DEMICHEVA,D.M., redaktor; KIRSANOVA,N.A., tekhnicheskiy redaktor

[Twenty five years in a machine shop] 25 let u stanka. [Moskva] Izd-vo VTsSPS profizdat, 1955. 69 p. (MLRA 9:1)

1. Shlifovshchik Moskovskogo instrumental'nogo zavoda (for Medvedev)
(Machine-shop practice)

ZVEREV, Ivan Andreyevich, strogal'shchik; MOKROUSOV, Ivan Ivanovich, rastechnik; DEMICHEVA, D.M., redaktor; KIRSANOVA, N.A., tekhnicheskiy redaktor.

[Work practice with planing and boring machines] Opyt raboty na strogal'nom i rastochnom stankakh. Moskva, Izd-vo VTsSPS Profizdat, 1955. 95 p. (MLRA 9:4)

1.Voronezhskiy machinostroitel'nyy zavod imeni Kalinina (for Zverev, Mokrousov).
(Planing machines) (Drilling and boring machinery)

DEMICHEVA, L.I.

Vysokie urozhai arbuzov; opyt kolkhoza "Bor'ba za urozhai" Berezovskogo raiona Stalingr. oblasti (High watermelon yields; experience of the "Bor'ba za urozhai" Collective Farm, Berezovskaya District, Stalingrad Province). Moskva, Selkhazgiz, 1954. 13 p.

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

M.A. DEMICHEVA

11(4) PHASE I BOOK EXPLOITATION SOV/2073

Akademiya nauk SSSR. Bashkirskiy filial, Ufa

Khimiya seraorganicheskikh soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh; [materialy III nauchnoy sessii] (Chemistry of Sulphur Organic Compounds Contained in Petroleum and Petroleum Products; [Papers of the Third Scientific Session]) Moscow, Izd-vo AN SSSR, 1959. 376 p. 2,000 copies printed. Errata slip inserted.

Editorial Board: R.D. Obolentsev (Resp. Ed.) Doctor of Chemical Sciences; S.R. Gal'pern, Doctor of Chemical Sciences; Ya. B. Chertkov, Doctor of Technical Sciences; V.V. Panov, Candidate of Technical Sciences; and V.P. Rozhdestvenskiy, Candidate of Chemical Sciences; Ed. of Publishing House: I.I. Bruzov; Tech. Ed.: T.P. Polenova.

PURPOSE: This book is intended for chemists, chemical engineers, and technicians specializing in the chemistry of petroleum.

COVERAGE: The book is a collection of papers presented at the Third Scientific Session on the Chemistry of Organic Sulfur- and Nitrogen Compounds Contained in Petroleum and Petroleum Products. The scientific session was held in Ufa, June 3-8, 1957. The book consists of six sections: 1) Synthesis, characterization, and analysis of organic sulfur compounds; 2) Separation and composition of organic sulfur compounds contained in petroleum and petroleum products; 3) Transformation of organic sulfur compounds by thermal catalysis; 4) Corrosive properties of and tar formation in sulfur-containing petroleum and petroleum products; 5) Uses of organic sulfur compounds and hydrogen sulfide; 6) Physiological properties of organic sulfur compounds. No personalities are mentioned. There are 315 references, of which 179 are Soviet, 118 English, 5 French, 12 German, and 1 Czech.

TABLE OF CONTENTS:

Card 2/10

Chemistry of Sulphur Organic Compounds (Cont.) SOV/2073

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(12)

MATVEYEV, A.A.; KOTLYAROVA, C.S.; LAVRENT'YEVA, A.V.; AVDYUNIN, N.I.; KRASITSKAYA, A.I.; DEMICHEVA, M.A.;

Quality of students' knowledge in chemistry. Khim. v shkole 17 no.2: 91-94 Mr-Ap '62. (MIRA 15:3)
(Chemistry--Study and teaching)

DZHAVROVA, I.K.; ANTONKIN, E.; BRYNZOVA, Z.; DEMICHEVA, N.; ZERENKOVA, L.; TARASOVA, V.; YANKEVICH, G.

Comparative evaluation of various media for determining the toxigenic properties of diphtheria bacilli in vitro. Lab. delo 6 no.4:48 Jl-Ag '60. (MIRA 13:12)

1. Kafedra mikrobiologii Smolenskogo meditsinskogo instituta.
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA) (DIPHTHERIA)

DEMICHEVA, O. D.

USSR/Chemistry - Soda Production

FD 171

Card 1/1

Author : Legenchenko, I. A. Cand Chem Sci, and Demicheva, O. D.

Title : Experimental work on the development of a process for the purification of the brine at a soda plant.

Periodical : Khim. prom. 3, 31-33 (159-161), April-May 1954

Abstract : Describes development and pilot-plant work on the purification of sodium chloride solutions with calcium hydroxide and soda. Illustrated by 1 figure. Data are listed in 4 tables. 1 USSR reference is given.

DEMICHEVA, V.I.

Registration and structure of skin diseases in the Crimea from 1956 to 1961. Vest. derm. i ven. 37 no.2:66-70 F'63. (MIRA 16:10)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - dotsent N.I.Metlitskiy) Krymskogo meditsinskogo instituta i Oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach M.G.Kochetov).

*

L. 32965-66 EWP(j)/EWT(m)/T IJP(c) RM

ACC NR: AP6017603 (A) SOURCE CODE: UR/0183/66/000/001/0029/0031

37

AUTHOR: Levin, B. Ya.; Savitskiy, A. V.; Demicheva, V. P.

B

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Effect of the degree of stretching on the strength of capron fibers

SOURCE: Khimicheskiye volokna, no. 1, 1966, 29-31

TOPIC TAGS: synthetic fiber, polyamide, tensile strength, nylon

ABSTRACT: The authors study the effect of stretching conditions on the strength of polyamide fibers at liquid nitrogen temperatures. The specimens had minimum initial orientation evaluated from measurments of birefringence. The experimental data show a linear relationship between strength and degree of stretching. Elongation and molecular orientation increase when the stretching temperature is raised. The experimental data prove conclusively that the strength of capron fiber is a function of the degree of stretching alone and is independent of the temperature and the rate at which the orientation stretching is done. The increase in strength properties of the capron takes place in such a way that stretching does not change the breaking load at -196°C reduced to the cross section of the original fiber. This same relationship is observed in specimens of polyethylene and rubber when they are stretched to 400-700%. If the

Card 1/2 UDC: 677.494.675

L 32965-66
ACC NR: AP6017603

mechanism responsible for this phenomenon were determined, it could explain the process of strength increase in polymer fibers. Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: 17Nov64/ ORIG REF: 006/ OTH REF: 003

Card 2/2

DEMICHEVA, YE. V.

DEMICHEVA E. V.

Znachenie proby s amital-natriem dlia razgranicheniia raslichnykh stadii gipertonicheskoi bolezni. /Significance of the test with amytal-sodium for the determination of various stages of hypertension/ Klin. med., Moskva 21:6 June 51 p. 46-9.

1. Of the Faculty Therapeutic Clinic (Supervisor--Honored Worker in Science Prof. G. F. Lang, Active Member of the Academy of Medical Sciences USSR, deceased; Acting Director of Clinic--Prof. T. S. Iatsmanova), First Leningrad Medical Institute imeni I. P. Pavlov, Leningrad.

DEMICHOV, D.A.

Recent developments in the technology of major track repairs. Put' i put. khoz. no.9:16-17 S '58. (MIRA 11:9)

1. Nachal'nik normativnoy stantsii tresta "Rekput'."
(Railroads--Track)

DEMICHOWICZ, J.

POL.

3148 541.155 : 532.72

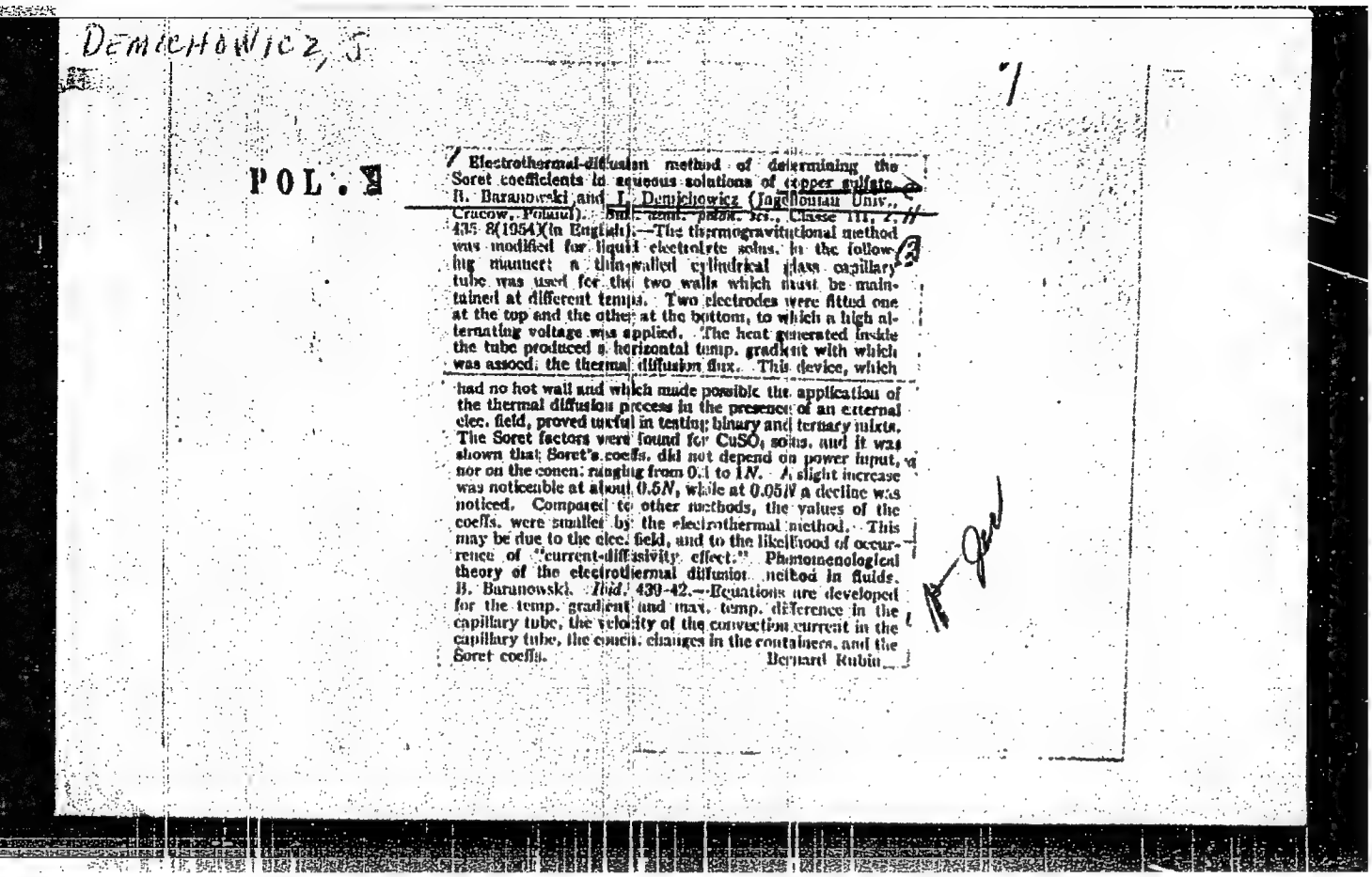
Baranowski B., Demichowicz J. Electrothermodiffusion of Aqueous Electrolytic Solutions.

„Elektrotermodyfuzja w wodnych roztworach elektrolitów". Roczniki Chemii (PAN). No. 4, 1953, pp. 494--504, 10 figs.

The authors modified the thermographical method of Clusius by employing different methods of obtaining the temperature gradient

OVER

investigation of the $H_2O+CuSO_4$ system gave the following results: — 1) for a small external section of the capillary tube (~ 1 mm), the ratio of concentration in the lower and upper containers, n_D/n_O, increased first linearly, and after a time became practically constant; 2) the ratio n_D/n_O rose with the increase of the power of the electric current for the same period of thermodiffusion and initial concentration of $CuSO_4$; 3) for the same power and period of thermodiffusion, the ratio of concentrations was practically invariable within the limits of 0.2 — 1 N of the original concentrations, while at lower concentrations it decreased rapidly. For the $CuSO_4$ — H_2O — C_2H_5OH system, the following results were obtained: — 1) the ratio of concentrations for $CuSO_4$ was higher than for C_2H_5OH; 2) as the power of the current increased, so did the ratio of concentrations for $CuSO_4$, whereas in the case of C_2H_5OH this increase ceased at a certain point of power; 3) the addition of C_2H_5OH reduced the ratio of concentrations of $CuSO_4$; within the initial concentration range, 25—30 vol% of C_2H_5OH and 0.1 N $CuSO_4$, the decrease in the concentration ratio was rapid; 4) the addition of equal quantities of C_2H_5OH (10 vol.%) to different initial concentrations of $CuSO_4$ produced a marked decrease in the ratio of $CuSO_4$ concentrations below 0.2 N.



Demichowicz, J.

POL. V

Electrothermal-diffusion method of determining the Soret coefficients in aqueous solutions of copper sulfate. R. Baranowski and L. Demichowicz (Jagellonian Univ., Cracow, Poland). *Bull. acad. polon. sci., Classe III*, 2, 435-8(1954)(in English).—The thermogravitational method was modified for liquid electrolyte solns. in the following manner: a thin-walled cylindrical glass capillary tube was used for the two walls which must be maintained at different temps. Two electrodes were fitted one at the top and the other at the bottom, to which a high alternating voltage was applied. The heat generated inside the tube produced a horizontal temp. gradient with which was assocd. the thermal diffusion flux. This device, which had no hot wall and which made possible the application of the thermal diffusion process in the presence of an external elec. field, proved useful in testing binary and ternary mixts. The Soret factors were found for $CuSO_4$ solns. and it was shown that Soret's coeffs. did not depend on power input, nor on the concn. ranging from 0.1 to 1*N*. A slight increase was noticeable at about 0.5*N*, while at 0.05*N* a decline was noticed. Compared to other methods, the values of the coeffs. were smaller by the electrothermal method. This may be due to the elec. field, and to the likelihood of occurrence of "current-diffusivity effect." Phenomenological theory of the electrothermal diffusion method in fluids. B. Baranowski. *Ibid.*, 439-42.—Equations are developed for the temp. gradient and max. temp. difference in the capillary tube, the velocity of the convection current in the capillary tube, the concn. changes in the containers, and the Soret coeffs.

Bernard Rubin

DEMICHOWICZ-PIGONIOWA, JADWIGA.

5

Electrothermodiffusion in aqueous solutions of electrolytes. Jadwiga Demichowicz-Pigoniowa and Bogdan Baranowski. *Prace Konf. Elektrochem., Warsaw*, 1955, 819–42(German summary 842–3)(Pub. 1957); cf. preceding abstr.—The Soret coeff. in aq. solns. of electrolytes can be detd. by the "electrothermodiffusion method." The same method can be used also for other liquids that are good conductors of elec. current, e.g. molten salts or metal alloys. The electrothermodiffusion method has the advantage of simplicity in accurate detn. of the internal radius of a capillary by weighing a Hg rod of a known length; this eliminates the chief inaccuracy of the thermogravitational method. Detn. of the Soret coeff. by the electrothermodiffusion method requires knowledge of the app. parameters, phenomenological coeffs. of the liquids under investigation, detn. of the coeff. of split at the known voltage that is applied to the capillary, the amperage of the current, and the time required for the split. A thin-walled glass capillary with each end widened to a reservoir of 1 ml. capacity was used. The capillary and the widened parts were surrounded by a cooling-water jacket. Each widened part was provided with a reversible electrode. The app. was vertical. After the app. was filled with the soln. of electrolyte, the electrodes were connected to an a.c. source of several kv. The liquid in the capillary became heated. Outside cooling by water caused a horizontal temp. gradient as great as 300°/cm. that set up a horizontal thermodiffusion current and, because expansion changed the d. and concn. of the soln., a vertical convection current. The latter current conveyed the component enriched at the wall of the capillary to the lower reservoir. This method of electrothermal diffusion differs from the conventional thermogravitational method in that: (1) there is no hot wall, because the highest temp. is along the axis of the capillary, (2) thermodiffusion takes place in the presence of an external elec. field. The new method was used to det. the Soret coeff. of the following aq. solns.: $CuSO_4$, $AgNO_3$, a mixt. of $AgNO_3$ and NH_4NO_3, KCl, NaCl, HCl. For $CuSO_4$ solns. this coeff. was: for 1*N* soln. 9.4, for 0.75*N* 9.1, for 0.5*N* 10.4, for 0.1*N* 10.5, and for 0.05*N* 7.2/degree; all the above figures for the Soret coeff. must be divided by 1000. Coeffs. for other solns. are not given. 44 references. F. J. Hendel

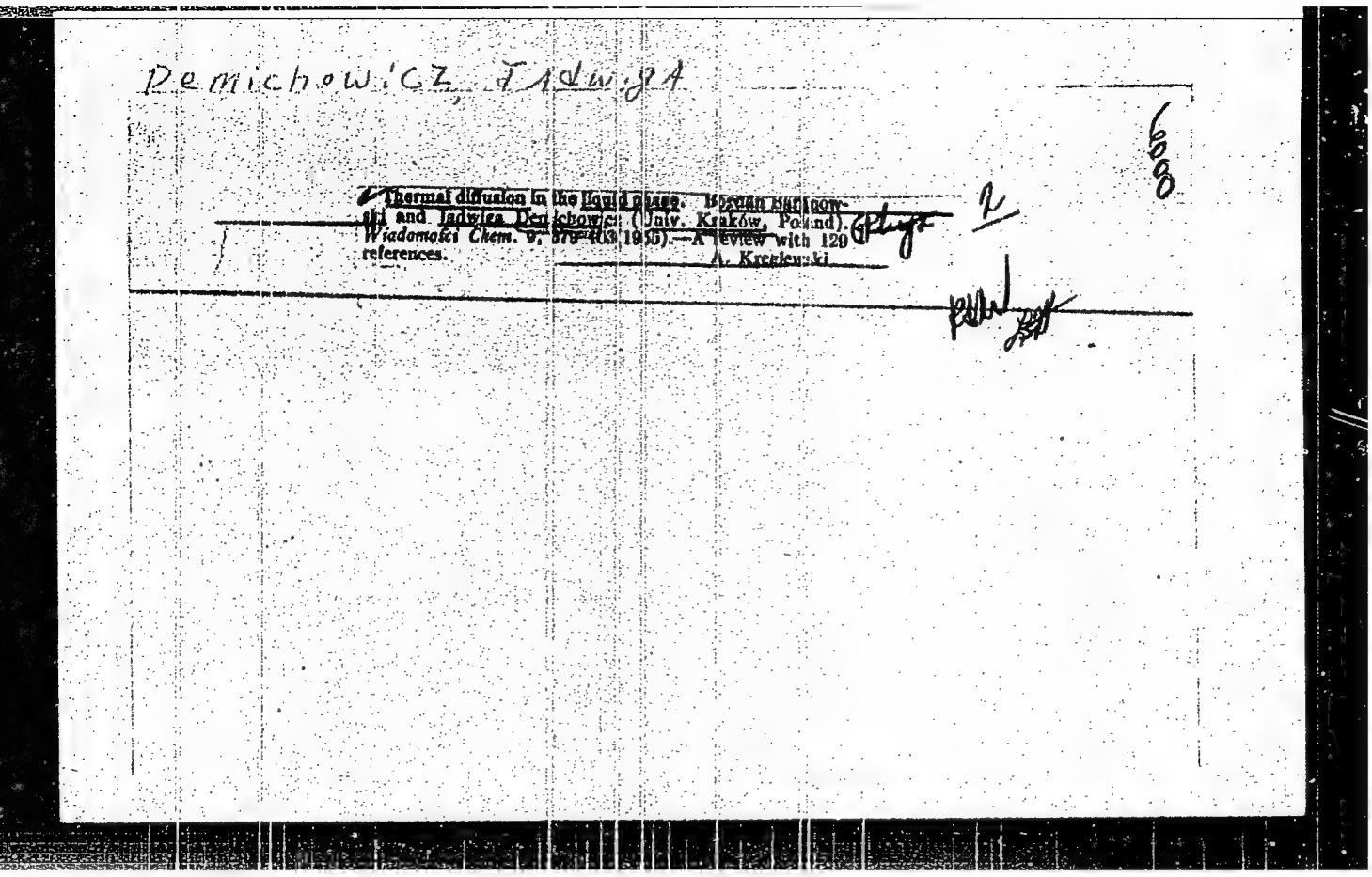
DEMICHOWICZ, J. ; BARANOWSKI, B.,

J. DEMICHOWICZ, "Thermal diffusion in the liquid phase." Chemical News, Poland No. 7-8, July-August 1955

DERICHOWICZ, J.

Baranowski, B. Determination of Soret coefficients of aqueous $CuSO_4$ solutions by the electrothermal diffusion method. p. 603.
ROCZNIKI CHEMI, Warszawa, Vol. 29, no. 2/3, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

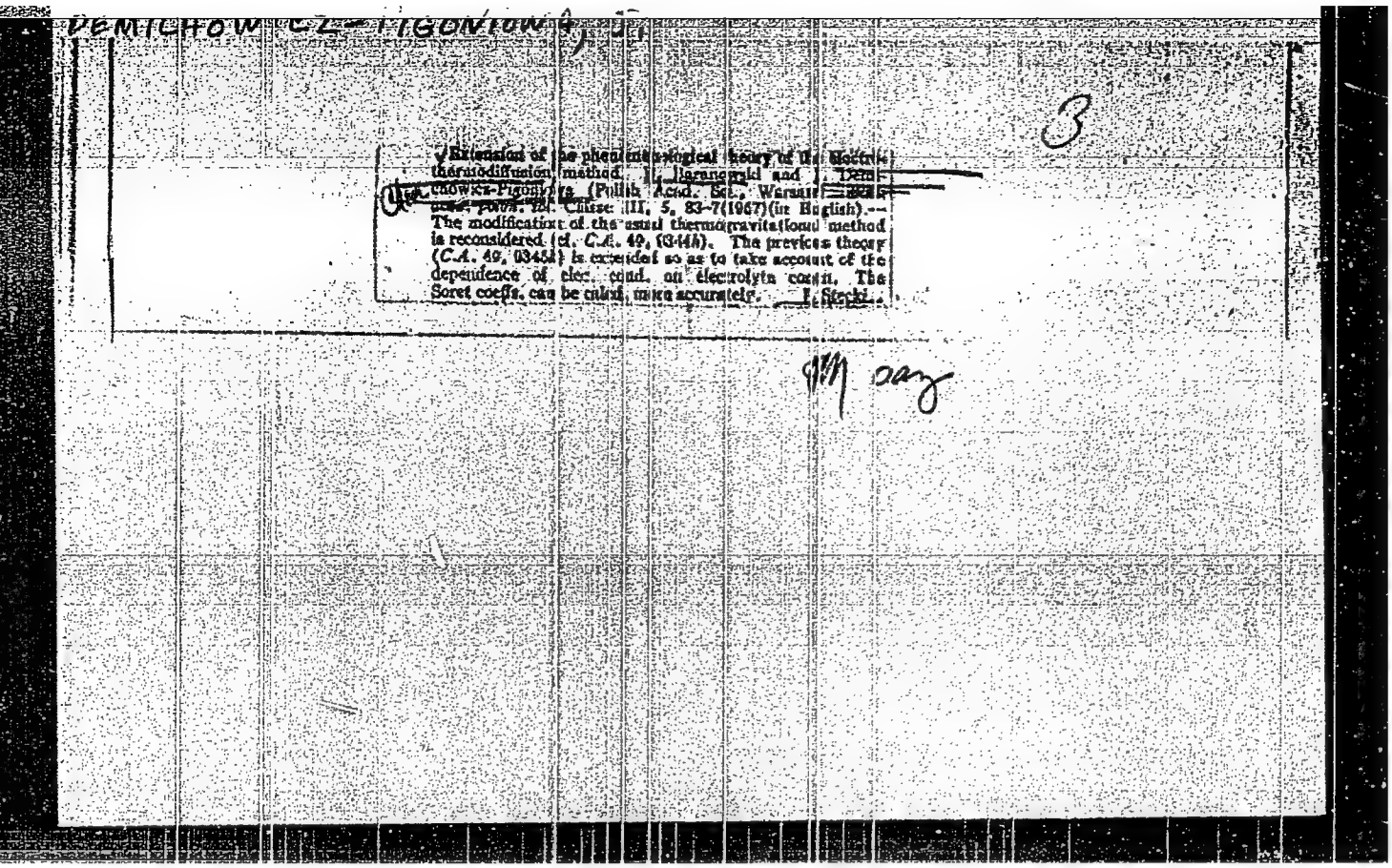


Demichowicz, Ladwiga

6888

Thermal diffusion in the liquid phase. Bronisław Marianowski and Jadwiga Demichowicz (Univ. Kraków, Poland). *Wiadomości Chem.* 9, 379-403 (1955).—A review with 129 references.

A. Krasiewski



DEMICHOW CZ - PIGONIOW

3

Extension of the phenomenological theory of the thermodiffusion method. I. Jaranowski and Demichowicz-Pigoniowa (Polish Acad. Sci., Warsaw, Poland). Bul. Chim. (II, 5, 83-7(1967)(in English).--The modification of the usual thermogravitational method is reconsidered (cf. C.A. 49, 6344h). The previous theory (C.A. 49, 6345d) is extended so as to take account of the dependence of elec. cond. on electrolyte concn. The Soret coeffs. can be calcd. more accurately. I. Stecki.

9th copy

POLAND / Physical Chemistry. Nuclear Chemistry. Isotopes. B-7

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 76594.

Author : Baranowski, B. and Demichovicz-Pigoniowa, J.
Inst : Not given.
Title : A Phenomenological Theory of the Electrothermal Diffusion Method.

Orig Pub: Roczniki Chem, 31, No 3, 927-935 (1957) (in Polish with Russian and English summaries).

Abstract: The theory is developed on the basis of the consideration of the effect of concentration changes on the temperature gradient in the capillary. The results obtained have been used in a new determination of the Soret coefficient for aqueous Cu sulfate solutions.

Card 1/1

COUNTRY : Poland B-11
CATEGORY :

ABS. JOUR. : RZKhim., No. 1959, No. 85441

AUTHOR : Demichowicz-Pigoniowa, I.
INST. :
TITLE : Viscosity Coefficients of Aqueous Solutions of $CdSO_4$.

ORIG. PUB. : Roczn. chem., 1959, 33, No 1, 203-204

ABSTRACT : By means of a precision viscosimeter, determinations were made, at 25°, of viscosity coefficient η of aqueous solutions of $CdSO_4$ of concentration from 0 to 5 N. On increase of concentration of the solution η increases from 0.894 to 4.638 c-poises. The values of η obtained for 0.125 - 1.0 N solutions of $CdSO_4$ are higher than the previously published data (Wagner I., Z. phys. Chem., 1930, 5, 31) by less than 0.01 c-poises. -- B. Kaylan.

CARD:

DEMICHOWICZ-PIGONIOWA, J.

Temperature dependence of the Soret coefficient for aqueous cadmium sulfate solutions. Bul chim PAN 13 no.1:59-62 '65.

1. Department of Physical Chemistry of Wroclaw Technical University. Submitted November 9, 1964.

DEMICHOWICZ-PIGONIOWA, Jadwiga

Electrothermodiffusion in aqueous solutions of $CdSO_4$. Rocz chemii 34 no.3/4:1185-1187 '60. (EEAI 10:3)

1. Katedra Chemii Fizycznej Politechniki, Wroclaw
(Cadmium sulfate) (Solutions) (Water)

DEMICHOWICZ-PIGONIOWA, Jadwiga

Temperature dependence of viscosity of aqueous solutions of cadmium sulfate. Rocz chemii 36 no.11:1677-1681 '62.

1. Department of Physical Chemistry, Institute of Technology, Wroclaw.

DEMICHOWICZ-PIGONIOWA, Jadwiga, dr inz., adiunkt

Temperature coefficient of the specific electric conductance of aqueous solutions of cadmium sulfate. Chemia Wroclaw no.10: 93-97 '64.

1. Department of Physical Chemistry of Wroclaw Technical University. Submitted March 1963.

DEMICZ-STYCZYNSKA, Bogumila

A tentative morphologic characteristic of the parasite fly. Acta parasit 8 no.1/7:115-126 '60. (EEAI 9:10)

1. Department of Zoology, Uniwersity of Warszawa. Director: Prof Dr. Zdzislaw Raabe. Author's address: Panstwowy Zaklad Higieny, Zaklad D.D.D. Warszawa, Chocimska 24.
(Flies) (Diptera) (Parasites)

USSR/General Problems of Pathology - Immunity U-1

Abs Jour : Ref Zhur - Biol., No. 18, 1958, 84711

Author : ~~Damdaev, V. V.~~

Institute : No institute is given

Title : The Influence of Total-Body Irradiation with X-rays on the Phagocytic Functions of the Granulocytes

Orig Pub : Tr. Vses. konferentsii po med. radiol. Eksper. med. radiol. Moscow, Medgiz, 1957, 178-180

Abstract : Within three to six hours following irradiation of guinea pigs with 200 r, a reduction in the phagocytic activity (PA, or percentage of active phagocytes among the total number of granulocytes counted) of 1.8 times was noted, and a reduction in the phagocytic intensity (PI, or the average of bacteria phagocytosed per leukocyte) of two times was noted. The number of granulocytes (G) increased, while that of lymphocytes (L) decreased. Within 12-24 hours after irradiation there was normalization of the phagocytic function of

Card 1/2

USSR/General Problems of Pathology - Immunity U-1

DEMIDAS, V.V.

Possibility for increasing the power of a β-ray applicator by using a lead screen reflector. Vest.rent. i rad. 33 no.2:63-66 Mr-Ap '58. (MIRA 11:6)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. Ye.D.Dubovyy) Odesskogo meditsinskogo instituta imeni N.I.Pirogova (dir. - prof. I.Ya.Deyneka)

(RADIOTHERAPY, appar. & instruments
lead screen reflector for increasing efficiency of β-ray applicator (Rus))

DEMIDAS, V.V.; IRZHEVSKAYA, O.I.; LEL'CHITSKIY, V.N., kand.med.nauk

Spontaneous pneumothorax in infants during the first months of life. Pediatriia 38 no.11:70-73 N '60. (MIRA 14:2)

1. Iz kafedry rentgenologii i radiologii (zav. - prof.Ye.D. Dubovyy) kliniki detskikh bolezney lechebnogo fakul'teta (zav. - dotsent V.P.Chrenyuk) Odesskogo meditsinskogo instituta (direktor - prof.I.Ia.Deyneka).
(PNEUMOTHORAX in inf. & child)
(INFANT NEWBORN diseases)

DEMIDAS, V. V. Cand Med Sci -- "Observations of the phagocytic function of leucocytes in general X-ray irradiation of the organism. (Experimental study)." Odessa, 1960 (Min of Health Armenian SSR. Yerevan State Med Inst). (KL, 1-61, 207)

LESHCHINSKIY, A.F.; DONDUA, E.G.; DEMIDAS, V.V.

Oxyhemometry in thyrotoxicoses and treatment with radioactive iodine. Probl. endkok. i gorm. 6 no. 1:80-87 Ja-F '60. (MIRA 14:1)
(BLOOD--OXYGEN CONTENT) (HYPERTHYROIDISM)
(IODINE--ISOTOPES)

DUBOVYY, Ye. D., prof.; OKS, A. A., prof; BUCHINSKAYA, M. P.; VORONENKO, T. V.; DEMIDAS, V. V.; FASTOVSKAYA, R. M. (Odessa)

Treatment of thyrotoxicosis with radioactive iodine. Probl. endok. i gorm. no.6:50-56 '61. (MIRA 14:12)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. Ye. D. Dubovyy) i kafedry fakul'tetskoy u gospital'noy terapii (zav. - prof. A. A. Oks) Odesskogo meditsinskogo instituta (dir. - zasluzhennyy deyatel' nauki prof. I. Ya. Deyneka)

(IODINE--ISOTOPES)
(THYROID GLAND--DISEASES)

DEMIDAS, V.V. (Odessa, V-47,ul.Pastera,d.11,kv.9) ; RUBAN, S.I.

X-ray diagnosis of the perforation of a hydatid cyst of the lungs. Klin.khir. no.7:15-21 Jl '62. (MIRA 15:9)

1. Kafedra obshchey khirurgii (zav. - prof. I.Ya.Deyneka) pediatricheskogo i stomatologicheskogo fakul'teta i kafedra rentgenologii i radiologii (zav. - prof. Ye.D.Dubovyy) Odesskogo meditsinskogo instituta.
(LUNGS--HYDATIDS) (DIAGNOSIS, RADIOSCOPIC)

DEMIDAS, V.V.; VORONENKO, T.V.

[illegible] radiotherapy following surgical treatment of thyrotoxicosis. Med. rad. 10 no.7:41-46 Jl '65. (MIRA 18:9)

1. Kafedra rentgenologii i radiologii (zav. - prof. Ye.D.Dubovyy) Odesskogo meditsinskogo instituta imeni N.I.Pirogova.

DEMIDASYUK, I.

Transmitter for a beginner shortwave radio amateur. Radio no.3: 33-36 Mr '60. (MIRA 13:6)
(Radio, Shortwave--Transmitters and transmission)

DEMIDASYUK, I.

Radio transmitter for competitions in the broadcast band.
Radio no.9:19-22 S '64. (MIRA 17:12)

DEMIDCHIK, V.P.; LOSKUTOV, V.V.; CHEDIYA, O.K.

Time of the formations of the Yashil'-Kul' Lake in the Pamirs.
Sbor. trud. Tadzh. fil. Geog. ob-va SSSR no.2:9-18 '61.
(MIRA 14:11)

(Yashil'-Kul' Lake)

MURASHOV, Yu.N.; DEMIDCHIK, Ye.P.

Double penetrating wound of the right heart ventricle. Zdrav. Belor. 5 no.6:68-69 Je '59. (MIRA 12:9)

1. Iz khirurgicheskogo otdeleniya Mogilevskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach BSSR S.T.Il'in).
(HEART--WOUNDS AND INJURIES)

DEMIDCHIK, Ye.P.

Our experience in treating terminal conditions. Zdrav. Bel. 6 no.11: 58-60 N '60. (MIRA 13:12)

1. Iz khirurgicheskogo otdeleniya (zaveduyushchiy Yu.N.Marashov) Mogilevskoy oblastnoy bol'nitsy (glavnyy vrach S.T. Il'in).
(RESUSCITATION)

GAIN, M.I.; DIMIDCHIK, Ye.P.

Prolonged intravenous thiopental and alcohol anesthesia combined with local novocaine anesthesia. Zdrav. Bel. 9 no.7: 68-70 Jl '63 (MIRA 17:4)

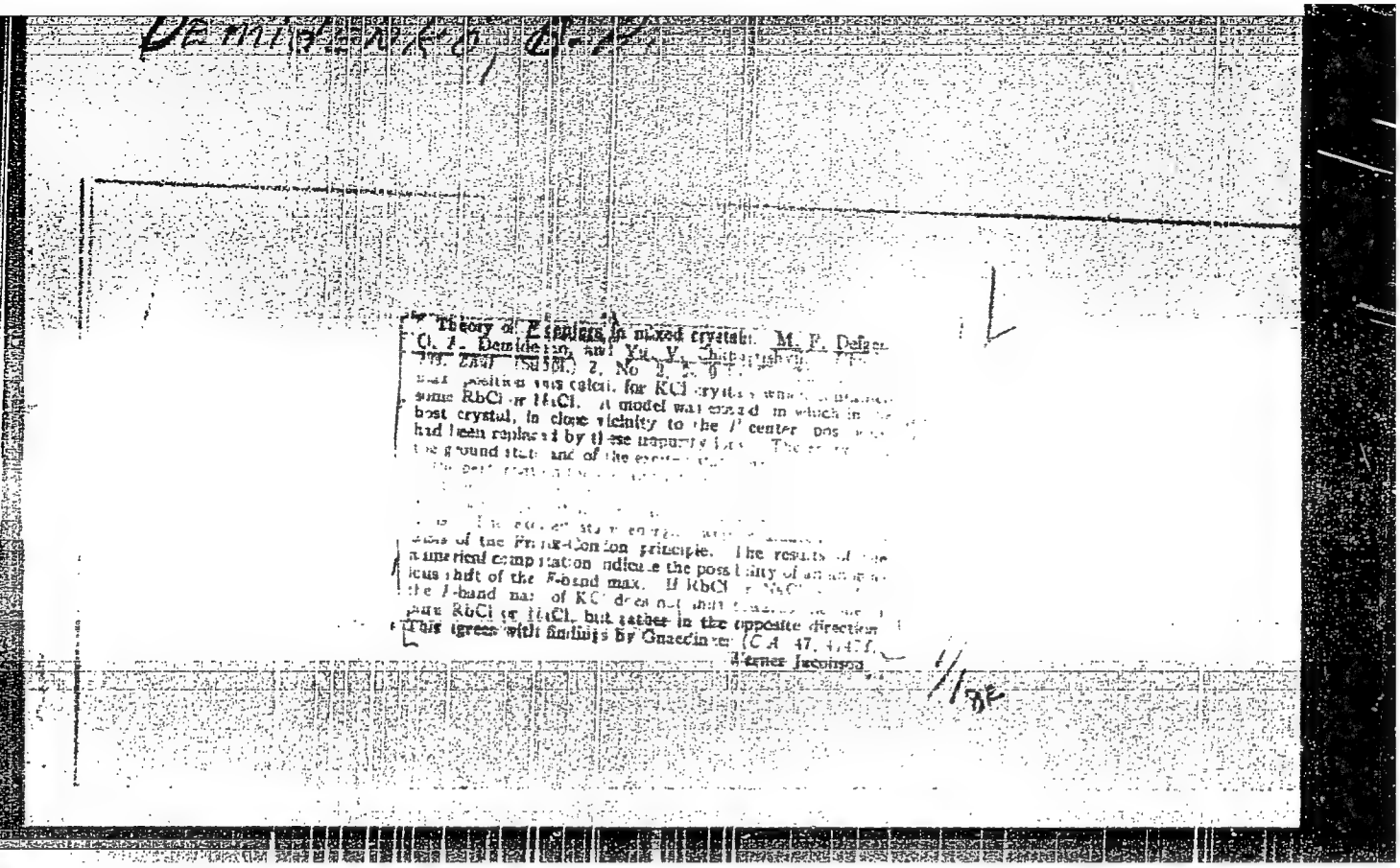
1. Iz khirurgicheskogo otdeleniya (zav. - Yu. N. Murashov) Mogilevskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach BSSR S.T.D.'in).

JASINSKI, Wladyslaw; DEMIDECKI, Andrzej; GWIAZDOWSKI, Bohdan

A technic of teletherapy with cobalt-60. Polski przegl. radiol. 25 no.4:363-384 '61.

1. Z Zakladu Izotopowego i Zakladu Fizyki Instytutu Onkologii w W Warszawie Dyrektor Instytutu: prof. dr. J. Laskowski Kierownik Zakladu Izotopowego: prof. dr W. Jasinski Kierownik Zakladu Fizyki: mgr inz. J. Malesa.

(COBALT radioactive)



Theory of F centers in mixed crystals. M. F. Deigen, Ch. I. Dantsker, and Yu. V. [illegible]. Zhur. Eksp. i Teor. Fiz. 2, No. [illegible]. [illegible]

[illegible] position was calcd. for KCl crystals with [illegible] some RbCl or HCl. A model was created in which in the host crystal, in close vicinity to the F center, [illegible] had been replaced by these impurity ions. The [illegible] the ground state and of the [illegible]

[illegible] of the Franck-Condon principle. The results of the numerical computation indicate the possibility of an anomalous shift of the F-band max. If KCl [illegible] some RbCl or HCl, the F-band max. of KCl does not shift [illegible] but rather in the opposite direction. This agrees with findings by Gnaedinger (C.A. 47, 4147f).

Werner Jacobson

DEMIDENKO, A.A. [Demidenko, O.A.]; DEMIDENKO, Z.A. [Demidenko, Z.O.]; TOLPYGO, K.B. [Tolpyho, K.B.]

Heat capacity and natural frequencies and amplitudes of KBr. Ukr. fiz. zhur. 3 no.6:728-742 N-D '58. (MIRA 12:6)

1. Institut fiziki AN USSR.
(Potassium bromide crystals--Vibration)
(Heat capacity)

DEMIDENKO, A.A.

Microtheory of the Frenkel exciton with and without allowing for lagging. Fiz.tver.tela 3 no.4:1195-1210 Ap '61. (MIRA 14:4)

1. Institut fiziki AN USSR, Kiyev.
(Excitons) (Crystal lattices)

Theory of scattering of...

where

$$V'(r, s, R) = -\frac{e}{mc}\sum_{n\alpha}(J_{n\alpha}A(R_{n\alpha})),$$

$$V''(s, R) = \frac{e^2}{2mc^2}\sum_{n\alpha}S_\alpha A^2(R_{n\alpha}); \qquad (2).$$

V(r,R) is the potential energy of the Coulomb interaction of the crystal particles, $J_{n\alpha}$ is the total momentum operator of the electrons of the molecule $n\alpha$, S_α is the number of α-type molecules, $A(r_i)$ is the vector potential, and $R_{n\alpha}$ describes the small displacements of the molecules from their equilibrium positions. If the energy of the outgoing photo-exciton is considerably greater than the energy of the phonons, then the only terms from (4) to contribute to the scattering are the following: terms of the type $\beta^2\xi$ (ξ is the phonon operator); terms of the type $\beta\alpha\xi$; and terms of the type $\alpha^2\xi$. These terms, resulting from extensive calculations, are used to derive an expression for the probability of a photo-exciton being

Card 2/3

Theory of scattering of...

S/181/63/005/002/016/051
B104/B186

scattered with emission (absorption) of an acoustic phonon. The result shows that scattering from acoustic phonons dominates at low temperatures. There is 1 figure.

ASSOCIATION: Institut poluprovodnikov AN USSR, Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: August 20, 1962

Card 2/3

DEMIDENKO, A.A.

Calculating the probability of photoexciton scattering on photons. Fiz. tver. tela 5 no.10:2835-2846 O '63. (MIRA 16:11)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

YAKOVLEV, L.G.; GRISHUNIN, G.D., inzh., retsenzent; DENISENKO, A.A., inzh., red.

[Level indicators; their design and use] Urovnemery; konstruktsii, raschet, primenenie. Moskva, Izd-vo "Mashinostroenie," 1964. 190 p. (MIRA 17:8)

L 6702-65 EWA(h)/EWT(l)/EEC(k)-2/K/T/EEC(b)-2/EWP(k)/EWA(m)-2 Pf-4/Pl-4/Pl-4/
Po-4 IJP(c)/RAEM(l)/ASD/AS(mp)-2/ESD(gs)/RAEM(t)/ESD(c)
ACCESSION NR: AP4044952 S/0181/64/006/009/2771/2779

AUTHORS: Demidenko, A. A.; Pekar, S. I.

TITLE: Reflection and transparency coefficients of a crystal slab in the region of exciton absorption of light

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2771-2779

TOPIC TAGS: light absorption, reflection coefficient, transmission coefficient, exciton absorption, cubic crystal

ABSTRACT: One of the authors (Pekar, ZhETF v. 34, 1176, 1958) studied the transparency of a plane-parallel crystal slab with allowance for the supplementary light waves arising in the slab, but was unable to calculate the absolute values of the true reflection coefficient. This has now become possible following the calculation by the second author (Demidenko, FTT v. 5, 489 and 2,835, 1963) of photon scattering by lattice vibrations in a crystal. In the present paper, the

Card 1/2

L 6702-65
ACCESSION NR: AP4044952

2

authors calculate theoretically the true and imaginary parts of the refractive indices of the ordinary and supplementary light waves in the crystal, in the vicinity of the exciton light absorption. The coefficients of reflection, transmission, and true absorption of light in a plane-parallel slab are calculated. The case of a cubic crystal is examined in detail. The general formulas derived are illustrated with several numerical examples and are represented in the form of graphs. All the numerical calculations were made on the small "Promin" computer of the Institute of Cybernetics, AN UkrSSR. Orig. art. has: 6 figures and 19 formulas.

ASSOCIATION: Institut poluprovodnikov AN UkrSSR, Kiev (Institute of Semiconductors, AN UkrSSR)

SUBMITTED: 13Apr64 ENCL: 00

SUB CODE: OP, 88 NR REF SOV: 013 OTHER: 004

Card 2/2

L 14842-65 EWT(1)/T IJP(c)/APWL/SSD/ESD(gs)

ACCESSION NR: AP4048407 S/0181/64/006/011/3321/3330

AUTHORS: Damidenko, A. A.; Tolpy*go, K. B. B

TITLE: Role of long-range forces in the scattering of electrons of a homopolar crystal by phonons

SOURCE: Fizika tverdogo tela, v. 6, no. 11, 1964, 3321-3330

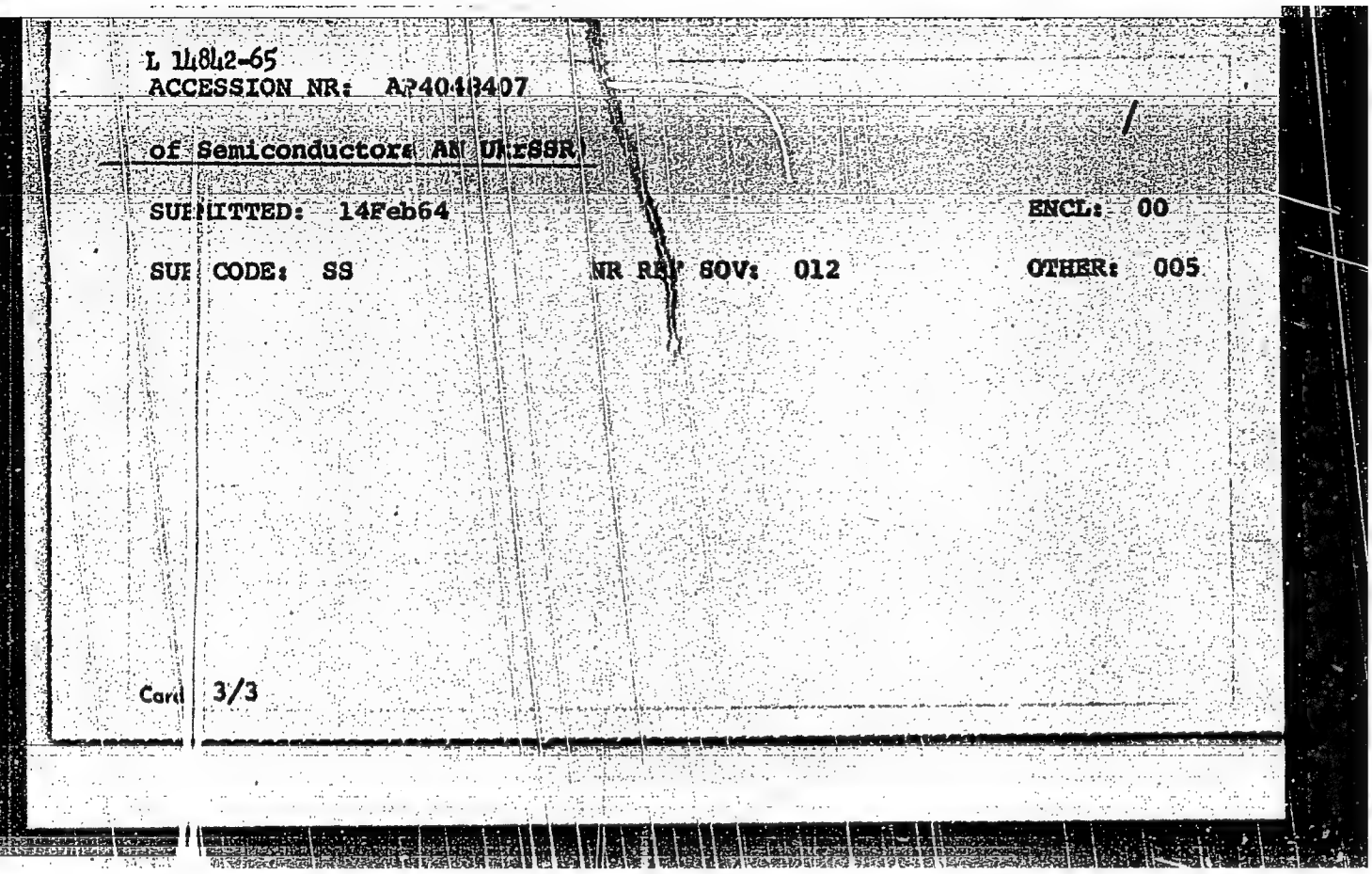
TOPIC TAGS: silicon, germanium, electron phonon scattering, homopolar crystal

ABSTRACT: An earlier treatment by one of the authors (Tolpy*go, FTT v. 4, 1765, 1962) is modified to take into account the effect of redistribution of the electron charge on the scattering of conduction electrons of a homopolar crystal by acoustic and optical phonons. Allowance for the electron redistribution is particularly important in the case of intervalley scattering, where the phonon wavelength is too short to be treated by the macroscopic electron-

Card 1/3

phonon interaction theory, and both homogeneous and inhomogeneous deformation of the lattice must be taken into account. The mobility in Ge and Si is calculated with allowance for the effective-mass anisotropy under the assumption that there is no other scattering mechanism. The calculated mobility is found to be several times larger than the observed value and to vary with the temperature like $T^{-1.64}$ and $T^{-1.56}$. The value of the intervalley scattering is estimated for the interaction with the dipole moments of the short-wave phonons, and the deformation potential is estimated. It is concluded that although the polarization of the atoms and the resultant interaction between the carriers and the phonons is not the dominating factor, it does have a strong effect on the scattering, and plays the same role in silicon as the potential of uniform deformation. Orig. art. has: 36 formulas and 4 tables.

ASSOCIATION: Institut poluprovodnikov AN UkrSSR, Kiev (Institute



L 14842-65
ACCESSION NR: AP4043407

of Semiconductors AN USSR]

SUBMITTED: 14Feb64 ENCL: 00

SUB CODE: SS NR REF SOV: 012 OTHER: 005

Card 3/3

L 22128-66 EWT(1)/T/EWA(h) IJP(c) AT
ACC NR: AP6004929 SOURCE CODE: UR/0056/66/050/001/0124/0130

AUTHOR: Demidenko, A. A.; Pekar, S. I.; Piskovoy, V. N.; Tsekvava, B. Ye. 12 13

ORG: Institute of Semiconductors, Academy of Sciences, Ukrainian SSR (Institut poluprovodnikov Akademii nauk Ukrainskoy SSR)

TITLE: Current-voltage characteristic of a semiconductor with an electron-phonon coupling proportional to the applied field 27

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 124-130

TOPIC TAGS: volt ampere characteristic, phonon interaction, electron interaction, semiconductor conductivity, dielectric constant, ultrasonic wave, kinetic equation, current carrier, electric field

ABSTRACT: This is a continuation of earlier work by one of the authors (Pekar, ZhETF v. 49, 621, 1965), where an electron-phonon coupling was introduced, arising in an applied electric field as a result of the dependence of the dielectric constant on the deformation of the medium. In the earlier article this interaction was treated in connection with the amplification and generation of ultrasonic waves in a crystal. In the present paper it is treated as a carrier-scattering mechanism, and is used together with the deformation potential and other scattering mechanisms

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Card 1/2

L 22128-66

ACC NR: AP6004929

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to calculate the carrier mobility. This new interaction is also used to solve the kinetic equation. It is shown that the conventional scattering mechanisms predominate in external fields, and give rise to Ohm's law, but in crystals with a very large dielectric constant the electron-phonon coupling becomes predominant and this explains why the current in the semiconductor passes through a maximum with increasing field and then decreases. Numerical calculations are presented for the case when the dielectric constant is of the order of 2500 and 20,000, where the maximum of the field occurs at approximately 10^5 v/cm. The limitations inherent in this method are briefly discussed. Orig. art. has: 1 figure and 24 formulas.

SUB CODE: 20/ SUBM DATE: 12Jun65/ ORIG REF: 004/ OTH REF: 002

Card 2/2 BK

DEMIDENKO, A.B., inzh.

Effect of butt joints on the inductance of the rail circuit.
Trudy DIIT no.29:67-73 '59. (MIRA 13:5)
(Electric railroads--Rails)

FRISHMAN, M.A., prof. (Dnepropetrovsk); DEMIDENKO, A.B., inzh. (Dnepropetrovsk)

Corrosion of the reinforcemen' and strength of ties. Put' i put'khoz. 8 no.8:8-10 '64. (MIRA 17:9)

DEMIDENKO, A.B., inzh.

Effect of leakage currents in track circuits on the corrosion of reinforced concrete ties. Sbor. trud. DIIT no 39:76-88 '63.
(MIRA 18:4)

SHAMIS, D.L.; BAYAKHUNOV, Ya.K.: POPENKO,M.K.; IL'INA, K.A.; DEMIDENKO,A.F.

Role of micro-organisms in raising the nutritive value of millet. Trudy Inst. mikrobiol. i virus. AM Kazakh. SSR 7: 16-21 '63 (MIRA 16:12)

ACC NR: AP6017975 SOURCE CODE: UR/0413/66/000/010/0079/0079

INVENTORS: Yonal'yov, V. D.; Domidenko, A. G.

ORG: none

TITLE: A method for obtaining granular polymers. Class 39, No. 181807 [announced by Ukrainian Scientific Research Institute of Plastics (Ukrainskiy nauchno-issledovatel'skiy institut plasticheskikh mass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 79

TOPIC TAGS: polymer, polycondensation, plastic, formaldehyde, phenol, alumosilicate, silica gel

ABSTRACT: This Author Certificate presents a method for obtaining granular polymers. The method involves suspensional polycondensation of one or several mixed polar substances that enter the polycondensation reaction and form oil-insoluble products, such as phenolsulfo acids and formaldehyde, in a nonpolar dispersing medium. To strengthen the stability of the emulsion, structuring substances are added to the dispersing medium. These substances possess hydrophylic-hydrophobic properties or are capable of assuming hydrophylic-hydrophobic properties due to an addition of hydrophobilizing or hydrophylizing addenda, for instance alumosilicates, silica gel or organic salts of heavy metals.

SUB CODE: 11/ 07/ SUBM DATE: 14Jan63

Card 1/1 UDC: 678.6.034

L 34855-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AP5008533 S/0286/65/000/006/0036/0036

21 B

AUTHOR: Demidenko, A. G.; Mirnenko, N. I.

TITLE: A grease for protecting the interior surface of a reaction vessel for block polystyrene and copolymers based on block polystyrene. Class 23, No. 169163

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 36

TOPIC TAGS: grease, protective coating

ABSTRACT: This Author's Certificate introduces a grease for protecting the interior surface of a reaction vessel for block polystyrene and copolymers based on block polystyrene. A wider selection is provided and the adhesion properties of the grease are improved by adding calcium, zinc or magnesium stearate and butyl stearate.

ASSOCIATION: none

SUBMITTED: 19Jan63 ENCL: 00 SUB CODE: FP

NO REF SOV: 000 OTHER: 000

Card 1/1

L 44588-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6015664 (A) SOURCE CODE: UR/0413/66/000/009/0074/0074

36
B

INVENTOR: Demidenko, A. G.; Mironenko, N. I.

ORG: none

TITLE: Method of obtaining low-molecular vinyl polymers. Class 39, No. 181284 [announced by Ukrainian Scientific Research Institute of Plastics (Ukrainskiy nauchno-issledovatel' skiy institut plasticheskikh mass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 74

TOPIC TAGS: polymer, vinyl polymer, monomer, vinyl monomer, polymerization catalyst

ABSTRACT: An Author Certificate has been issued for a method of obtaining low-molecular vinyl polymers by bulk polymerization of vinyl monomers during heating in the presence of an aluminosilicate catalyst. To increase the polymer yield, a sodium mold of montmorillonite clays, treated in a water medium by the interaction

Card 1/2 UDC: 678.74.044

L 44588-66

ACC NR: AP6015664

of organohalosilanes or halosilanes with an excess of methyl or ethyl alcohol, is used as the aluminosilicate catalyst. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 04Jun65/

Card 2/2 Lgm

08630-67 EWT(m)/EWP(j) RM

ACC NR: AP6035675 SOURCE CODE: UR/0413/66/000/019/0018/0018

INVENTOR: Demidenko, A. G.; Mironenko, N. I.

ORG: none

TITLE: Montmorillonite clay-based catalyst. Class 12, No. 186394 [announced by Ukrainian Scientific Research Institute of Plastics (Ukrainskiy nauchno-issledovatel'skiy institut plastmass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 18

TOPIC TAGS: montmorillonite clay, polymerization catalyst, vinyl compound

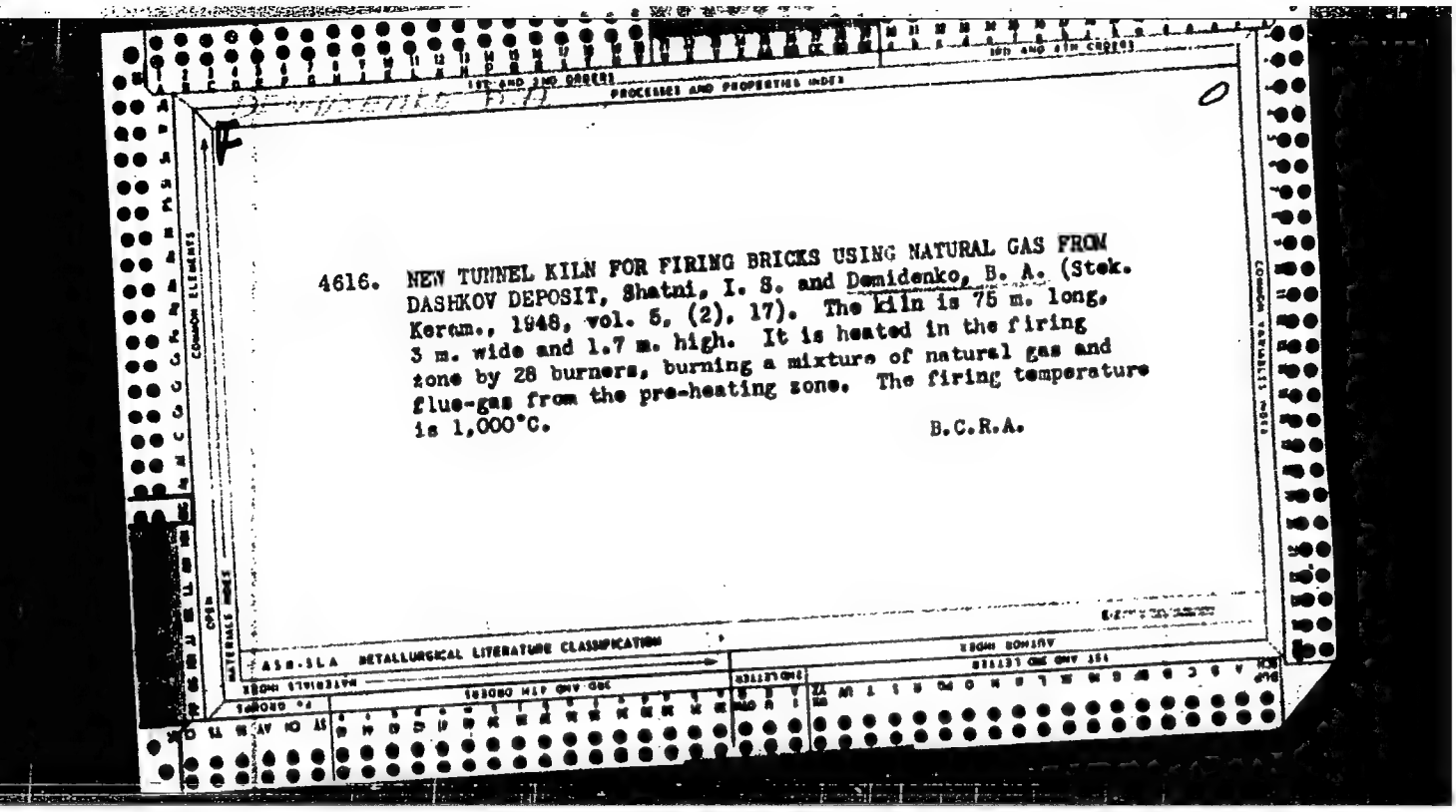
ABSTRACT: An Author Certificate has been issued for a method of preparing selective and highly reactive montmorillonite clay-based catalysts for the polymerization of vinyl compounds. The method involves treatment of sodium montmorillonite clays with the reaction product of an organohalosilane or halosilane [both unspecified] with an excess of methyl or ethyl alcohol. The clay and the silane can be used in a 10/1 to 1/10 ratio.

SUB CODE: 11, 07/ SUBM DATE: 04Jun65/ ATD PRESS: 5103

Card 1/1 UDC: 66.095.264.3

DEMIDENKO, B. A.

Derid, T. P. and Demidenko, B. A. Selection of Refractories for Vogres Steam Boilers Fired With Coal Dust. Ogneupory, 8 (8-9) 431-36 (1940).--Refractory linings of Vogres steam boilers must possess high thermal stability, high resistance to slag, and resistance to the effects of flying ashes and gases. Refractories with a high grog contentand kaolin products were found most suitable.



4616. NEW TUNNEL KILN FOR FIRING BRICKS USING NATURAL GAS FROM DASHKOV DEPOSIT, Shatni, I. S. and Demidenko, B. A. (Stek. Keram., 1948, vol. 5, (2), 17). The kiln is 75 m. long, 3 m. wide and 1.7 m. high. It is heated in the firing zone by 28 burners, burning a mixture of natural gas and flue-gas from the pre-heating zone. The firing temperature is 1,000°C.

B.C.R.A.

DEMIDENKO, B.G., kand. sel'skokhozyaystvennykh nauk

Biology of blooming and the development of sorgo hybrids. Dokl. Akad. sel'khoz. 24 no.5:21-25 '59. (MIRA 12:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy. Predstavleno akademikom N.A. Maysuryanom.
(Sorghum)

DEMIDENKO, B.G., kand.sel'skokhoz.nauk

Work results on the hybridization of sorgo. Agrobiologiia no. 3:409-418 My-Je '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy, Dnepropetrovsk.

DEMIDENKO, B. M.

Analytic determination of the wear of elements of a brake pair. Avt. prom. 29 no.5:15-18 My '63. (MIRA 16:4)

1. Armavirskaya avtomobil'naya shkola.

(Automobiles--Brakes)

DEMIDENKO, D. I. PA 167T58

USSR/Medicine - Paratyphoid Feb 50
Immunization

"Test of Immunizing Cows to Protect Calves From Paratyphoid," D. I. Demidenko, Dr Vet Med

"Veterinariya" No 2, p 25

Discusses tests conducted in 1946 using three-step vaccination by formol vaccine starting when cow is in seventh month of calving. First dose is 6-8 ml; second (2 weeks later) is 10-12 ml; and third (after 2 more weeks) is 13-15 ml. In tests on 630 cows, no cases of paratyphoid

[redacted]

167T58

USSR/Medicine - Paratyphoid (Contd) Feb 50

were found in the calves. System is used in plan of antiepizootic measures for all farms served by author's group.

[redacted]

167T58

DEMIDENKO, G.B.

Peculiarities of perennial grass cultivation in Orlov Province.
Zemledelie 6 no.3:42-47 Mr '58. (MIRA 11:4)

1.Kuybyshevskiy sel'skokhozyaystvennyy institut.
(Volga Valley--Wheat)

DEMIDENKO, Grigoriy Borisovich; SLEPTSOVA, K., red.; SAPELOVSKIY, A., red.; MIKHAYLOV, V., tekhn.red.

[Forage crops of Orlov Province] Kormovye kul'tury v Orlovskoi oblasti. Orel, Orlovskoe knizhnoe izd-vo, 1960. 161 p. (MIRA 14:3)

(Orlov Province--Forage plants)

DEMIDENKO, G.I.

Valve equipped feeding bottle for calves. Veterinariia 34 no.2: 69 F '57. (MLRA 10:11)

1. Starshiy veterinarnyy vrach Upravleniya veterinarii Ministerstva sel'skogo khozyaystva Moldavskoy SSR.
(Calves--Feeding and feeding stuffs)

KALASHNIKOV, N.P., vetvrach; DEMIDENKO, G.I., vetvrach

Experience in improving veterinary hygiene on the farm. Veterinariia 36 no.3:60-62 Mr '59. (MIRA 12:4)

1. Plemennoy sovkhoz "Borskaya ferma," Gor'kovskoy oblasti (for Kalashnikov). 2. Veterinarnaya inspektsiya Ministerstva sel'skogo khozyaystva Moldavskoy SSR (for Demidenko).
(Veterinary hygiene)

DEMIDENKO, G.T.

Investigation of saturated molasses of sugar factories. Sakh. prom. 35 no.12:31-33 D '61. (MIRA 15:1)

1. Krasnodarskiy nauchno-issledovatel'skiy institut polimerizatsionnykh plastmass.
(Molasses--Analysis)

DEMIDENKO, I., inzhener.

Charts for testing airplane engines. Grashd. av.13 no.3:24-25 Mr '56. (Airplanes--Engines--Testing) (MLRA 9:7)

ACCESSION NR: AP4041684 S/0153/64/007/002/0307/0312

AUTHOR: Kolobenin, V. N.; Utlenko, Ye. V.; Demidenko, I. A.; Blokh, G. A.

TITLE: The use of carbon black in cable resins.

SOURCE: Ivuz. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 2, 1964, 307-312

TOPIC TAGS: carbon black, cable resin, filler, thermal aging resistance, channel black, lamp black, furnace black, thermal black, thermal oxidation, tensile strength, elongation, physical mechanical property, insulating type resin, electrical insulating property, volatility, stability

ABSTRACT: A study was made of the effect of different types of carbon blacks and their combinations on the thermal aging resistance of hose and cable resins. Lamp, channel, furnace and thermal carbon blacks and combinations of 60 parts lamp, furnace or thermal black with 40 parts channel black were tested in a recipe ShVP-50 (in %: NK-35.0; SKIM-50R-15; S-1.0; Captax- 0.35; ZnO-2.5; furnace black-21.95; channel black-14.70; stearin-2.5; Neozone "D"-0.5, rosin-1.5; paraffin-5.0). Vulcanization was at 143C; resistance to thermal oxidation at 85, 100 and 110C was

Card 1/3